

Science

Name: _____

Date: _____

The 'Particle Theory of Matter' helps explain why sugar will dissolve in water. Water is made up of many small water particles that tend to attract each other and stay together. Sugar is made up of many small sugar particles that tend to attract each other and stay together. When sugar is added to water the attractions are reduced. The water particles pull sugar particles away. The water particles then surround the sugar particle and keeps moving. Slowly, more and more sugar particles are pulled away. Eventually, the solution becomes homogeneous. Most of the sugar is surrounded by water particles. The particles continue to move so the sugar doesn't have a chance to come back together.

The parts of a solution have special names. Water in a sugar solution is called the solvent. The solvent is the material that dissolves, pulls away and surrounds the particles, an added material. There are many different types of solvents. Dry cleaners, for example, use a chemical that helps dissolve and remove dirt from clothes. Usually, there is more solvent than the dissolved material.